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| 10/618,038      | 07/11/2003  | Shun-Chih Chen       | 03173-URL           | 4125             |

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| EXAMINER |
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LIE, ANGELA M

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| ART UNIT | PAPER NUMBER |
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2821

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/618,038

Applicant(s)

CHEN ET AL.

Examiner

Angela M. Lie

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7 is/are rejected.
- 7) ☒ Claim(s) 6, 8 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. The term "can " or "can be" in claims 1, 2, 3, 5, 6 and 7 is a relative term, which renders the claim indefinite. The term "can" or "can be" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "can" or "can be" does not specify if certain components or elements are included or excluded from the apparatus, therefore one of ordinary skill in the art cannot determine the scope of the invention.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laksono (US 20030152148).

As to claim 1, Laksono discloses a digital lighting system controller with a video capability comprising: a video decoder (Figure 1, element 110) and computer display interface (page 5, paragraph 53, lines 1-4; inherently in order to display processed data, there has to be some sort of computer interface), an address and data generator (paragraph 32, lines 9-11; wherein in order to generate motion vector address and direction of motion has to be known), a memory (paragraph 34, lines 17-19), a pre-sequenced coordinates table (paragraph 32, lines 9-11), and a microprocessing unit (paragraph 32, lines 2-7), wherein the video decoder (Figure 1, element 110) and a computer display interface receive and convert both video input and VGA input (paragraph 3, lines 2-3) into a format to input to a format to input to the address and data generator (video decoder and computer interface inherently decode the necessary data such as an address or a color, so that the data can be displayed on the screen. If this step would not have been done, display function would not be possible because a video input signal carries a lot of data which needs to be decoded prior to displaying), the address and data generator then generates a plurality of data sets to be written into the memory (paragraph 44, lines 1-4), which further comprising an address (vector data inherently comprises an address data) area and a lighting data area (data quantization information, paragraph 36, lines 1-8), the pre-sequenced coordinates table stores the coordinates of the light bulb or

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dots in a preset sequence for the microprocessing unit to read (paragraph 44, lines 1-4), the microprocessing unit reads the coordinates in the table in a sequential order, finds the corresponding lighting data of that coordinates in the lighting data area, and outputs the lighting data (since the motion vectors are calculated and the output of connected to the plurality of display elements (page 5, paragraph 53, lines 1-4). Laksono does not specifically state that his device has both video and VGA inputs, however he states that the input is an analog video type (paragraph 3, lines 2-3), and that the received information is decoded and video image is created in the memory (paragraph 34, lines 4-8). It would have been obvious to one of the ordinary skill in the art during the time the invention was made that Laksono receives both video and VGA inputs in order to create a video image. Both address (part of motion vector) and color data have to be inherently supplied in order to create an image, therefore even though Laksono does not explicitly state that his device has both video and VGA inputs, it has to have an equivalence of those inputs, because his device is capable of decoding an analog video signal and then creating and displaying an image.

As to claim 2, Laksono teaches a digital lighting system wherein the video input is from LD, VCR, live video or camera equipment (paragraph 3, lines 2-3, wherein analog media data is considered to be a live video).

As to claim 3, Laksono not explicitly teaches a digital lighting system wherein the VGA input is one of the following computer images: analog VGA, DVI, or LVDS interface data (paragraph 3, lines 2-3 wherein analog media data is considered to be an analog VGA).

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As to claim 5, Laksono indirectly teaches a digital system controller wherein the lighting data is set to the size of 320X240, 640X480, 800X600, 1024X768 or 1280X1024 (Laksono teaches a device which supports format of 1920X1080 (HDTV); paragraph 92). It would have been obvious to one of the ordinary skill in the art during the time the invention was made that display which can support such as high resolution as 1920X1080, is also capable of displaying smaller very well known in the art resolutions as the ones disclosed above.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laksono (US 20030152148) in the view of Bauchspies (US 5675382). Laksono teaches a digital lighting system wherein the address area has a format of (X, Y) coordinates to represent the X and Y coordinates of the lighting bulb (paragraph 137, wherein macroblocks correspond to the dots on the display). Laksono does not explicitly teach that the lighting data area has a format of (R, G, B) to represent the red, green and blue components of the lighting bulb. Bauchspies teaches color video data wherein the video stream a video stream is generated by a charge coupled device with red, green and blue pixel (analogous to the lighting bulb) elements. It would have been obvious to one of the ordinary skill in the art during the time the invention was made to use video data representing three basic colors such as red, green and blue as taught by Bauchspies, in Laksono's video input, because those information are essential to produce the color image, which can be displayed.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laksono (US 20030152148) in the view of Sid (US 20040196140). Laksono

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teaches all the limitations disclosed in claim 1, but he does not teach that the output lighting data is either in the format of the DMX-512 standard that requires a fixed address, or a serial data that does not require fixed address. Sid teaches a controller panel and system for light and serially networked lighting system using a DMX-512 protocol instruction sequence. It would have been obvious to one of the ordinary skill in the art during the time the invention was made to use DMX-512 standard protocol as taught by Sid (paragraph 7) in Laksono's system for forming an image because DMX-512 protocol refers to protocol standard as defined by the United States Institute of Theatre Technology, therefore it is well known in the art (paragraph 7).

***Allowable Subject Matter***

8. Claims 6, 8, and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 6, 8, and 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

As to claim 6, the prior art failed to teach a digital lighting system controller as disclosed in claim 1, wherein coordinates data in the pre-sequenced coordinates table is downloaded from the RS-232 serial, parallel port, USB or

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IEEE1394, from memory devices such as ROM, EPROM, EEPROM, flash or other memory cards or input from the keyboard.

As to claim 8, the prior art failed to teach a digital lighting system controller as disclosed in claim 1, wherein the controller further comprising a pixel sharing algorithm for increasing resolution.

As to claim 9, this is claim would be allowable by the virtue of its dependency on claim 8.

### ***The Prior Art***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US 5406176 discloses a computer controlled stage lighting system comprising processor, computer interface, memory and lamp unit.
- US 4241295 discloses a digital lighting control system comprising memory, processor data input and light units.

### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela M. Lie whose telephone number is 571-272-8445. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax



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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Angela M Lie



Wilson Lee  
Primary Examiner